

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.



US Patent & Trademark Office

[Subscribe \(Full Service\)](#) [Register \(Limited Service, Free\)](#) [Login](#)

 Search: ☒ The ACM Digital Library ☐ The Guide



THE ACM DIGITAL LIBRARY


[Feedback](#) [Report a problem](#) [Satisfaction survey](#)

Terms used

Found 23,554 of

scanner and **skeleton** and **position** and **character** and **text** and **string** and **filter** and **filtering**

142,346

Sort results by

☒ Save results to a Binder

[Try an Advanced Search](#)
[Try this search in The ACM Guide](#)

Display results

☒ Search Tips

☐ Open results in a new window

Results 1 - 20 of 200

Result page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#)

Best 200 shown

Relevance scale ☐ ☐ ☐ ☐ ☐

1 [Fast detection of communication patterns in distributed executions](#)

Thomas Kunz, Michiel F. H. Seuren

 November 1997 **Proceedings of the 1997 conference of the Centre for Advanced Studies on Collaborative research**

 Full text available: pdf(4.21 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Understanding distributed applications is a tedious and difficult task. Visualizations based on process-time diagrams are often used to obtain a better understanding of the execution of the application. The visualization tool we use is Poet, an event tracer developed at the University of Waterloo. However, these diagrams are often very complex and do not provide the user with the desired overview of the application. In our experience, such tools display repeated occurrences of non-trivial commun ...

2 [Geographic Data Processing](#)

George Nagy, Sharad Wagle

June 1979 **ACM Computing Surveys (CSUR)**, Volume 11 Issue 2
 Full text available: pdf(4.20 MB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

3 [Three-dimensional object recognition](#)

Paul J. Besl, Ramesh C. Jain

March 1985 **ACM Computing Surveys (CSUR)**, Volume 17 Issue 1
 Full text available: pdf(7.76 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)


A general-purpose computer vision system must be capable of recognizing three-dimensional (3-D) objects. This paper proposes a precise definition of the 3-D object recognition problem, discusses basic concepts associated with this problem, and reviews the relevant literature. Because range images (or depth maps) are often used as sensor input instead of intensity images, techniques for obtaining, processing, and characterizing range data are also surveyed.

4 [Computing curricula 2001](#)

September 2001 **Journal on Educational Resources in Computing (JERIC)**
 Full text available: pdf(613.63 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

09/929,442

h c g e c f c

 [html\(2.78 KB\)](#)

5 Interactive Editing Systems: Part I

Norman Meyrowitz, Andries van Dam

September 1982 **ACM Computing Surveys (CSUR)**, Volume 14 Issue 3

Full text available:  [pdf\(3.08 MB\)](#) Additional Information: [full citation](#), [citations](#), [index terms](#)



6 Picture Processing by Computer

Azriel Rosenfeld

September 1969 **ACM Computing Surveys (CSUR)**, Volume 1 Issue 3

Full text available:  [pdf\(2.69 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)



7 Trigrams as index element in full text retrieval: observations and experimental results

Elizabeth S. Adams, Arnold C. Meltzer

March 1993 **Proceedings of the 1993 ACM conference on Computer science**

Full text available:  [pdf\(891.71 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

A trigram is a three element sequence of characters. In this paper we demonstrate the effectiveness of a trigram based index for morphologically based retrievals from a full text document retrieval system. Retrieved documents are considered relevant if they contain exact matches for each of the query terms. Using this definition of relevance we consistently achieve a recall rate of 100%. In the experiments described here, we used sets of 100 and three term queries, and the average ...



8 Progress in Picture Processing: 1969--71

Azriel Rosenfeld

June 1973 **ACM Computing Surveys (CSUR)**, Volume 5 Issue 2

Full text available:  [pdf\(2.34 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)



9 Interactive Editing Systems: Part II

Norman Meyrowitz, Andries van Dam

September 1982 **ACM Computing Surveys (CSUR)**, Volume 14 Issue 3

Full text available:  [pdf\(9.17 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)



10 Status report of the graphic standards planning committee

Computer Graphics staff

August 1979 **ACM SIGGRAPH Computer Graphics**, Volume 13 Issue 3

Full text available:  [pdf\(15.01 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#)




11 Document Formatting Systems: Survey, Concepts, and Issues

Richard Furuta, Jeffrey Scofield, Alan Shaw

September 1982 **ACM Computing Surveys (CSUR)**, Volume 14 Issue 3

Full text available: Additional Information:




 [pdf\(5.36 MB\)](#)

[full citation](#), [references](#), [citations](#), [index terms](#)

12 [Computer Processing of Line-Drawing Images](#)

Herbert Freeman

January 1974 **ACM Computing Surveys (CSUR)**, Volume 6 Issue 1

Full text available:  [pdf\(3.18 MB\)](#)

Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

13 [IEPAD: information extraction based on pattern discovery](#)

Chia-Hui Chang, Shao-Chen Lui

April 2001 **Proceedings of the tenth international conference on World Wide Web**

Full text available:  [pdf\(364.59 KB\)](#)

Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

Keywords: PAT tree, extraction rule, information extraction, multiple string alignment

14 [Data clustering: a review](#)

A. K. Jain, M. N. Murty, P. J. Flynn

September 1999 **ACM Computing Surveys (CSUR)**, Volume 31 Issue 3

Full text available:  [pdf\(636.24 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)


Clustering is the unsupervised classification of patterns (observations, data items, or feature vectors) into groups (clusters). The clustering problem has been addressed in many contexts and by researchers in many disciplines; this reflects its broad appeal and usefulness as one of the steps in exploratory data analysis. However, clustering is a difficult problem combinatorially, and differences in assumptions and contexts in different communities has made the transfer of useful generic co ...

Keywords: cluster analysis, clustering applications, exploratory data analysis, incremental clustering, similarity indices, unsupervised learning

15 [An optical system for full text search](#)

P. A. Mitkas, P. S. Guilfoyle

May 1989 **ACM SIGIR Forum , Proceedings of the 12th annual international ACM SIGIR conference on Research and development in information retrieval**, Volume 23 Issue 1-2

Full text available:  [pdf\(1.20 MB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

In this paper we propose a full text search system based on optics. The storage and processing of the textual data are performed by an optical back-end system to an electronic computer. In this way we can take advantage of the speed and parallelism of digital optical processing. Using the proposed configuration we show how one might implement a set of text processing operations using lasers, spatial light modulators and photodetectors.

16 [Lightweight lexical source model extraction](#)

Gail C. Murphy, David Notkin

July 1996 **ACM Transactions on Software Engineering and Methodology (TOSEM)**, Volume 5 Issue 3

Additional Information:

Full text available:  [pdf\(364.49 KB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Software engineers maintaining an existing software system often depend on the mechanized extraction of information from system artifacts. Some useful kinds of information—source models—are well known: call graphs, file dependences, etc. Predicting every kind of source model that a software engineer may need is impossible. We have developed a lightweight approach for generating flexible and tolerant source model extractors from lexical specifications. The approach is lightweight ...

Keywords: lexical analysis, lexing, reverse engineering, scanner generation, scanning, software maintenance, source code analysis, source model, static analysis

17 ["Maximal-munch" tokenization in linear time](#)

Thomas Reps

March 1998 **ACM Transactions on Programming Languages and Systems (TOPLAS)**, Volume 20 Issue 2Full text available:  [pdf\(152.17 KB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

The lexical-analysis (or scanning) phase of a compiler attempts to partition an input string into a sequence of tokens. The convention in most languages is that the input is scanned left to right, and each token identified is a "maximal munch" of the remaining input—the longest prefix of the remaining input that is a token of the language. Although most of the standard compiler textbooks present a way to perform maximal-munch tokenization, the algorithm th ...

Keywords: backtracking, dynamic programming, memoization, tabulation, tokenization

18 [Packrat parsing:: simple, powerful, lazy, linear time, functional pearl](#)

Bryan Ford


September 2002 **ACM SIGPLAN Notices , Proceedings of the seventh ACM SIGPLAN international conference on Functional programming**, Volume 37 Issue 9Full text available:  [pdf\(171.57 KB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Packrat parsing is a novel technique for implementing parsers in a lazy functional programming language. A packrat parser provides the power and flexibility of top-down parsing with backtracking and unlimited lookahead, but nevertheless guarantees linear parse time. Any language defined by an $LL(k)$ or $LR(k)$ grammar can be recognized by a packrat parser, in addition to many languages that conventional linear-time algorithms do not support. This additional power simplifies the handling ...

Keywords: Haskell, backtracking, lexical analysis, memoization, parser combinators, scannerless parsing, top-down parsing

19 [A guided tour to approximate string matching](#)

Gonzalo Navarro

March 2001 **ACM Computing Surveys (CSUR)**, Volume 33 Issue 1Full text available:  [pdf\(1.19 MB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

We survey the current techniques to cope with the problem of string matching that allows errors. This is becoming a more and more relevant issue for many fast growing areas such as information retrieval and computational biology. We focus on online searching and mostly on edit distance, explaining the problem and its relevance, its statistical behavior, its history

and current developments, and the central ideas of the algorithms and their complexities.
We present a number of experiments to ...

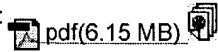
Keywords: Levenshtein distance, edit distance, online string matching, text searching
allowing errors

20 The FINITE STRING Newsletter: Abstracts of current literature

Computational Linguistics Staff

January 1987 **Computational Linguistics**, Volume 13 Issue 1-2

Full text available:



Additional Information: [full citation](#)

[Publisher Site](#)



Results 1 - 20 of 200

Result page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#)

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2004 ACM, Inc.

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)

Useful downloads:



[Adobe Acrobat](#)



[QuickTime](#)



[Windows Media Player](#)



[Real Player](#)

IEEE HOME | SEARCH IEEE | SHOP | WEB ACCOUNT | CONTACT IEEE



Membership Publications/Services Standards Conferences Careers/Jobs

IEEE Xplore®
 RELEASE 1.8

 Welcome
 United States Patent and Trademark Office


» Se.

[Help](#) [FAQ](#) [Terms](#) [IEEE Peer Review](#)
[Quick Links](#)

Welcome to IEEE Xplore®

- ☐ Home
- ☐ What Can I Access?
- ☐ Log-out

Tables of Contents

- ☐ Journals & Magazines
- ☐ Conference Proceedings
- ☐ Standards

Search

- ☐ By Author
- ☐ Basic
- ☐ Advanced

Member Services

- ☐ Join IEEE
- ☐ Establish IEEE Web Account
- ☐ Access the IEEE Member Digital Library

IEEE Enterprise

- ☐ Access the IEEE Enterprise File Cabinet

 Your search matched **2** of **1071730** documents.

 A maximum of **500** results are displayed, **15** to a page, sorted by **Relevance Descending** order.

Refine This Search:

You may refine your search by editing the current search expression or enter a new one in the text box.

☐ Check to search within this result set

Results Key:

JNL = Journal or Magazine **CNF** = Conference **STD** = Standard

1 IEE Colloquium on 'Character Recognition and Applications' (Digest No.109)

 Character Recognition and Applications, IEE Colloquium on , 2 Oct 1989
[\[Abstract\]](#) [\[PDF Full-Text \(12 KB\)\]](#) **IEE CNF**
2 Writer identification based on handwriting
Said, H.E.S.; Tan, T.N.; Baker, K.D.;

 Handwriting Analysis and Recognition (Ref. No. 1998/440), IEE Third European Workshop on , 14-15 July 1998
 Pages:4/1 - 4/6

[\[Abstract\]](#) [\[PDF Full-Text \(448 KB\)\]](#) **IEE CNF**

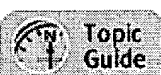
Print Format

[Home](#) | [Log-out](#) | [Journals](#) | [Conference Proceedings](#) | [Standards](#) | [Search by Author](#) | [Basic Search](#) | [Advanced Search](#) | [Join IEEE](#) | [Web Account](#) | [New this week](#) | [OPAC Linking Information](#) | [Your Feedback](#) | [Technical Support](#) | [Email Alerting](#) | [No Robots Please](#) | [Release Notes](#) | [IEEE Online Publications](#) | [Help](#) | [FAQ](#) | [Terms](#) | [Back to Top](#)

Copyright © 2004 IEEE — All rights reserved

09/929,442

h cee e eee g e ch e ch e e c e e e c e

[Return to the USPTO NPL Page](#) | [Help](#)

Marked List : 0 articles

Interface language:

English

Databases selected: Multiple databases...

[What's New](#)

Results

1 article found for: *scanner and text and string and filter*[Trade Publications](#)☐ Mark / Clear all on page[View marked articles](#) [Show all documents](#)Sort results by: **Most recent articles first**☐ 1. **Getting to know Windows 95 with Regmon**Anonymous. **Windows 95 Professional**. Jan 1999. Vol. 4, Iss. 1; p. 9 (3 pages) [Text+Graphics](#) [Page Image - PDF](#) [Abstract](#)

1-1 of 1

Results per page: **30**

Basic Search

[Tools:](#) [Search Tips](#) [Browse Topics](#) [2 Recent Searches](#)

scanner and text and string and filter

Search**Clear**

Database: Multiple databases...

[Select multiple databases](#)

Date range: All dates

Limit results to: ☒ Full text articles only☐ Scholarly journals, including peer-reviewed [About](#)[More Search Options](#)Copyright © 2004 ProQuest Information and Learning Company. All rights reserved. [Terms and Conditions](#)[Text-only interface](#)From: **ProQuest**
COMPANY

09/929,442

h e c eb e ch e f ce e